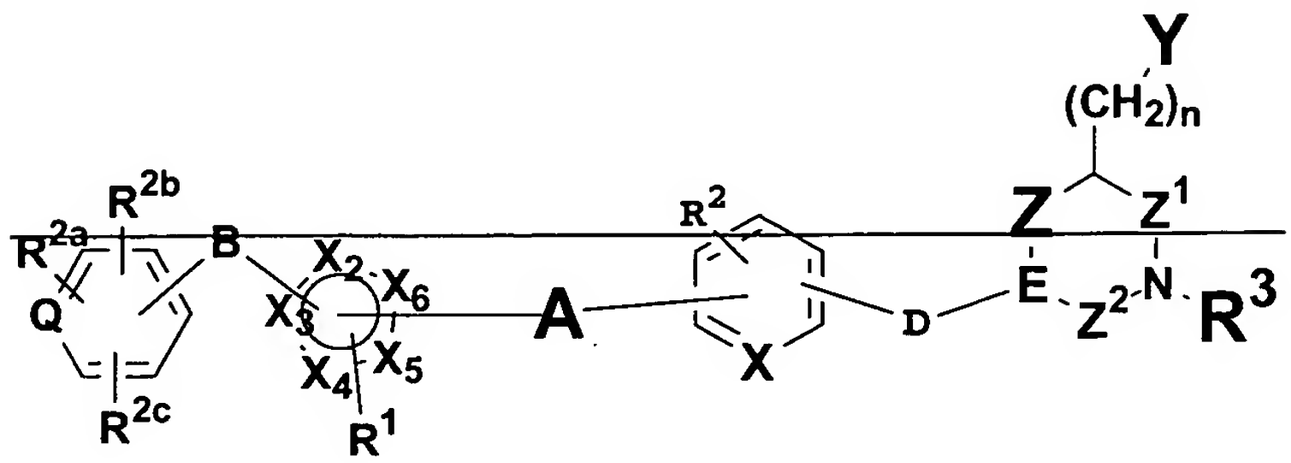
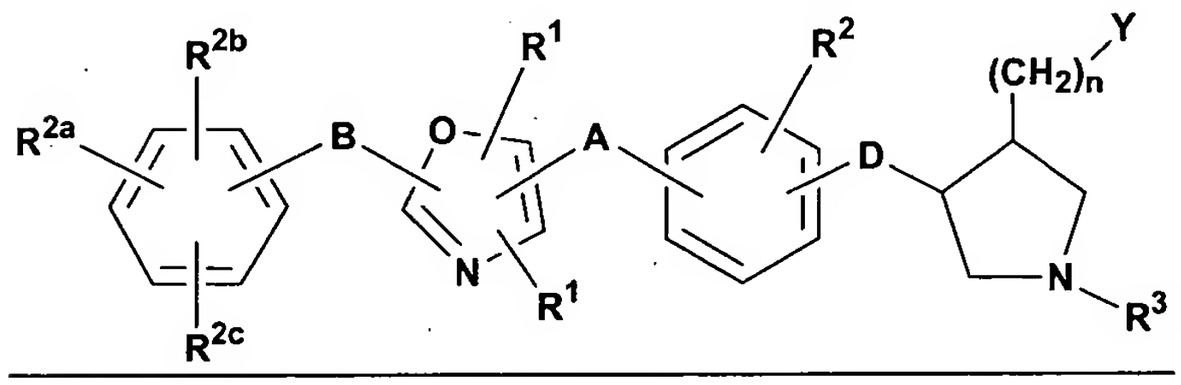
AMENDMENTS TO CLAIMS

Claim 1. (Currently Amended) A compound having the structure





wherein ~~Z^1 is $(CH_2)_q$ or C=O~~[[;]]

~~Z^2 is $(CH_2)_p$ or C=O~~[[;]]

D is -CH= or C=O or $(CH_2)_m$ where m is 0, 1, 2 or 3;

n = 0, 1 or 2; ~~p = 1 or 2; q = 0, 1 or 2,~~

~~Q is C or N~~[[;]]

A is $(CH_2)_x$ where x is 1 to 5; or A is $(CH_2)_x^1$, where x^1 is 1 to 5, with an alkenyl bond or an alkynyl bond embedded anywhere in the chain; or A is $-(CH_2)_x^2-O-(CH_2)_x^3-$ where x^2 is 0 to 5 and x^3 is 0 to 5, provided that at least one of x^2 and x^3 is other than 0;

B is a bond or is $(CH_2)_x^4$ where x^4 is 1 to 5;

~~X is CH or N~~[[;]]

~~X_2 is C, N, O or S~~[[;]]

~~X_3 is C, N, O or S~~[[;]]

~~X_4 is C, N, O or S~~[[;]]

~~X_5 is C, N, O or S~~[[;]]

~~X_6 is C, N, O or S~~[[;]]

~~provided that at least one of X_2, X_3, X_4 X_5 and X_6 is N; and at least one of X_2, X_3, X_4 X_5 and X_6 is C~~[[;]]

R^1 is H or alkyl;

R^2 is H, alkyl, alkoxy, halogen, amino or substituted amino;

R^{2a}, R^{2b} and R^{2c} may be the same or different and are selected from H, alkyl, alkoxy, halogen, amino, substituted amino or cyano;

R^3 is selected from H, ~~alkyl~~[[,]] arylalkyl, aryloxycarbonyl, alkyloxycarbonyl, alkynyloxycarbonyl, alkenyloxycarbonyl, ~~arylcarbonyl~~[[,]] alkylcarbonyl, aryl, heteroaryl, ~~cycloheteroalkyl~~[[,]] ~~heteroarylcarbonyl~~[[,]] ~~heteroaryl~~[[-]]~~heteroarylalkyl~~[[,]] ~~alkylcarbonylamino~~[[,]] heteroaryloxycarbonyl, cycloheteroalkyloxycarbonyl, ~~heteroarylalkyl~~[[,]] ~~aminocarbonyl~~[[,]] substituted aminocarbonyl, alkylaminocarbonyl, arylaminocarbonyl, ~~heteroarylalkenyl~~[[,]] ~~cycloheteroalkyl~~[[-]]~~heteroarylalkyl~~[[;]] ~~hydroxyalkyl~~[[,]] ~~alkoxy~~[[,]] alkoxyaryloxycarbonyl, arylalkyloxycarbonyl, alkylaryloxycarbonyl, ~~arylheteroarylalkyl~~[[,]] arylalkylarylalkyl, aryloxyarylalkyl, haloalkoxyaryloxycarbonyl, alkoxycarbonylaryloxycarbonyl, aryloxyaryloxycarbonyl, ~~arylsulfinylarylcarbonyl~~[[,]] ~~arylthioarylcarbonyl~~[[,]] alkoxycarbonylaryloxycarbonyl, arylalkenyloxycarbonyl, heteroaryloxyarylalkyl, ~~aryloxyarylcarbonyl~~[[,]] ~~arylcarbonylamino~~[[,]] ~~heteroarylcarbonylamino~~[[,]] ~~alkoxycarbonylamino~~[[,]] ~~aryloxycarbonylamino~~[[,]] ~~heteroaryloxycarbonylamino~~[[,]] ~~heteroaryl~~[[-]]~~heteroarylcarbonyl~~[[,]] alkylsulfonyl, alkenylsulfonyl, ~~heteroaryloxycarbonyl~~[[,]] ~~cycloheteroalkyloxycarbonyl~~[[,]] ~~heteroarylalkyl~~[[,]] ~~aminocarbonyl~~[[,]] ~~substituted aminocarbonyl~~[[,]] ~~alkylaminocarbonyl~~[[,]] ~~arylaminocarbonyl~~[[,]] ~~heteroarylalkenyl~~[[,]] ~~cycloheteroalkyl~~[[-]]~~heteroarylalkyl~~[[;]] ~~hydroxyalkyl~~[[,]] ~~alkoxy~~[[,]] ~~alkoxyaryloxycarbonyl~~[[,]] ~~arylalkyloxycarbonyl~~[[,]] ~~alkylaryloxycarbonyl~~[[,]] ~~arylheteroarylalkyl~~[[,]] ~~arylalkylarylalkyl~~[[,]] ~~aryloxyarylalkyl~~[[,]] ~~haloalkoxyaryloxycarbonyl~~[[,]] ~~alkoxycarbonylaryloxycarbonyl~~[[,]] ~~aryloxyaryloxycarbonyl~~[[,]] ~~arylsulfinylarylcarbonyl~~[[,]] ~~arylthioarylcarbonyl~~[[,]] ~~alkoxycarbonylaryloxycarbonyl~~[[,]] ~~arylalkenyloxycarbonyl~~[[,]] ~~heteroaryloxyarylalkyl~~[[,]] ~~aryloxyarylcarbonyl~~[[,]] aryloxyarylalkyloxycarbonyl, ~~arylalkenyloxycarbonyl~~[[,]] arylalkylcarbonyl, aryloxyalkyloxycarbonyl, arylalkylsulfonyl, ~~arylthiocarbonyl~~[[,]] arylalkenylsulfonyl, heteroarylsulfonyl, arylsulfonyl, alkoxyarylalkyl, heteroarylalkoxycarbonyl, arylheteroarylalkyl, ~~alkoxyarylcarbonyl~~[[,]] ~~aryloxyheteroarylalkyl~~[[,]] heteroarylalkyloxyarylalkyl,

arylarylalkyl, arylalkenylarylalkyl, arylalkoxyarylalkyl, arylcarbonylarylalkyl, alkylaryloxyarylalkyl, ~~arylalkoxycarbonylheteroarylalkyl~~[[,]] heteroarylarylalkyl, ~~arylcarbonylheteroarylalkyl~~[[,]] heteroaryloxyarylalkyl, ~~arylalkenylheteroarylalkyl~~[[,]] arylaminoarylalkyl, aminocarbonylarylarylalkyl;

~~E is CH or N~~[[;]]

~~Z is $(CH_2)_x^5$ where x^5 is 0 (a single or a double bond), 1 or 2, or Z is $(CH_2)_x^6$ where x^6 is 2 to 5, where $(CH_2)_x^6$ includes an alkenyl (C=C) bond embedded within the chain or Z is $-(CH_2)_x^7-O-(CH_2)_x^8$ where x^7 is 0 to 4 and x^8 is 0 to 4~~[[;]]

$(CH_2)_x$, $(CH_2)_x^1$, $(CH_2)_x^2$, $(CH_2)_x^3$, $(CH_2)_x^4$, ~~$(CH_2)_x^5$~~[[,]] ~~$(CH_2)_x^6$~~[[,]] ~~$(CH_2)_x^7$~~[[,]] ~~$(CH_2)_x^8$~~[[,]] $(CH_2)_m$, and $(CH_2)_n$[[,]] ~~$(CH_2)_p$ and $(CH_2)_q$~~ may be optionally substituted;

Y is CO_2R^4 where R^4 is H or alkyl, or a prodrug ester, or Y is a C-linked 1-tetrazole, a phosphinic acid of the structure $P(O)(OR^{4a})R^5$ where R^{4a} is H or a prodrug ester, R^5 is alkyl or aryl, or a phosphonic acid of the structure $P(O)(OR^{4a})_2$;

including all stereoisomers thereof, prodrug esters thereof, and pharmaceutically acceptable salts thereof.

Claim 2. (Cancelled).

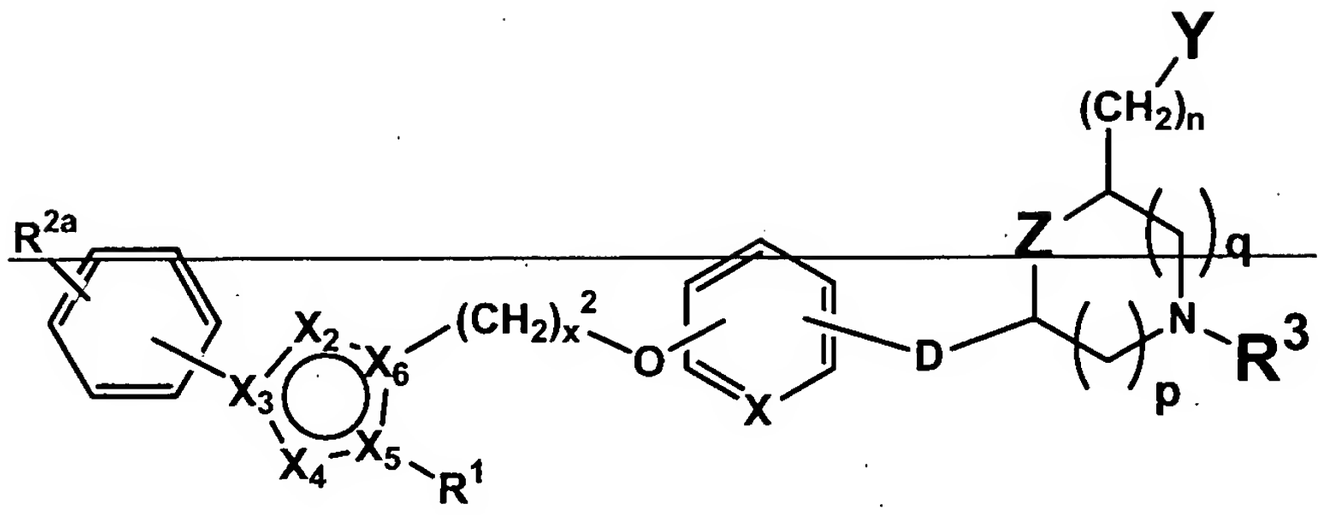
Claim 3. (Original) The compound as defined in Claim 1 wherein A is $-CH_2)_x^2-O-$.

Claim 4. (Cancelled).

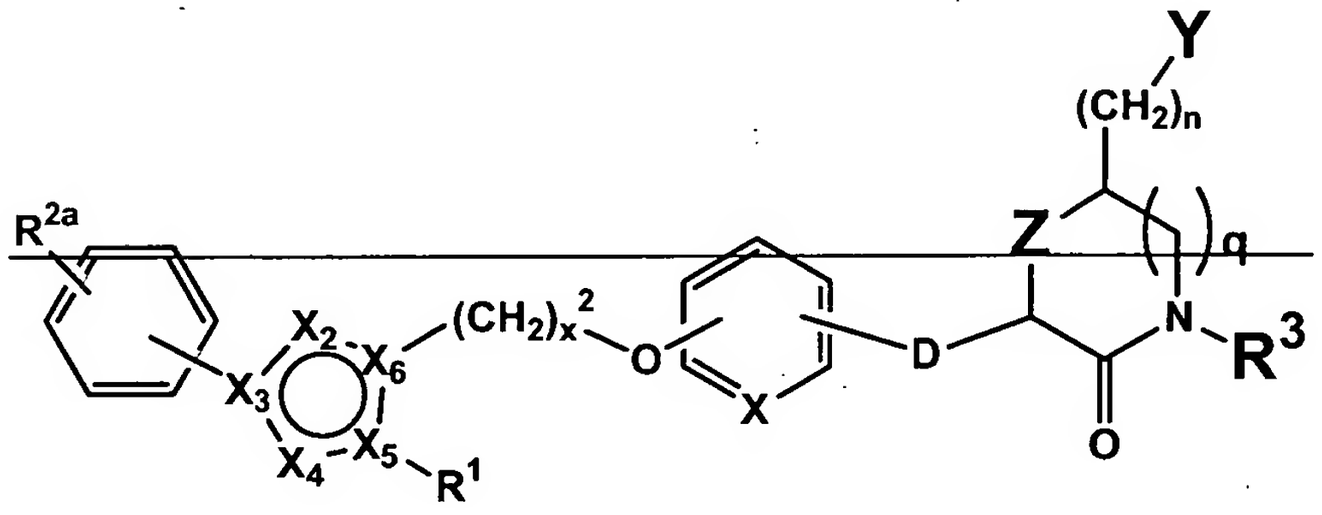
Claim 5. (Original) The compound as defined in Claim 1 wherein B is a bond.

Claims 6 to 9. (Cancelled)

Claim 10. (Currently Amended) The compound as defined in Claim 1 ~~having the structure~~ wherein B is a bond and A is $-(CH_2)_x^2-O-$.

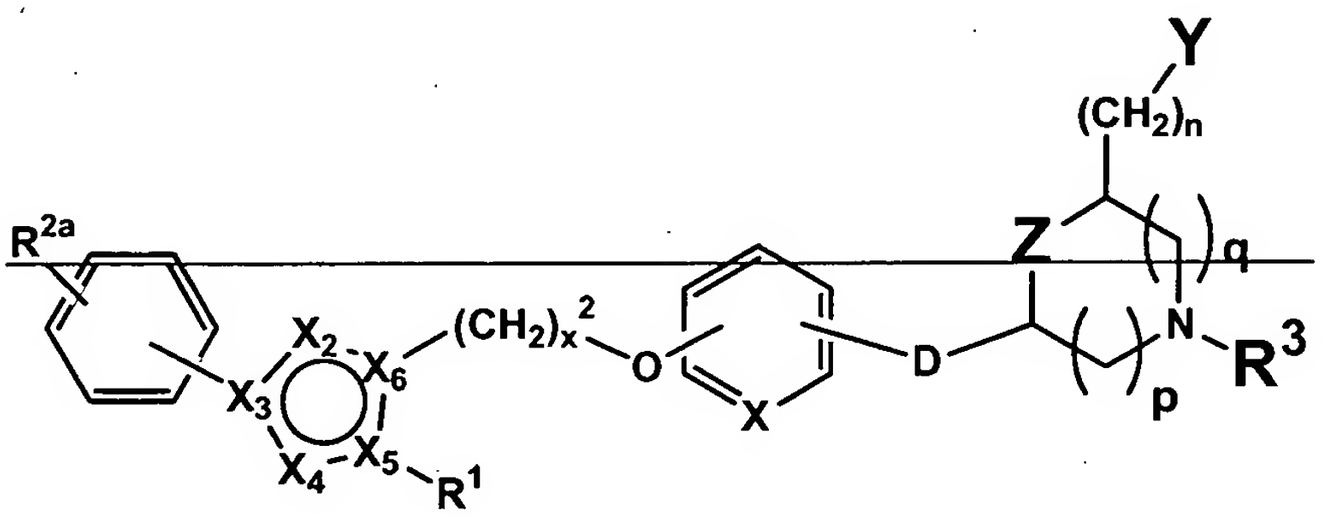


~~where X is CH~~[[.]]



~~where X is CH, q = 0, and Z is a single bond~~[[.]]

Claim 11. (Currently Amended) The compound as defined in Claim 1 ~~having the structure~~



wherein B is a bond;

A is $-(CH_2)_x{}^2-O-$;

R^1 is alkyl;

R^{2a} is alkyl, alkoxy or halogen;

x^2 is 1 to 3;

D is -CH= or $(CH_2)_m$ where m is 0 or $(CH_2)_m$ is CH_2 or CH-alkyl;

~~X is CH~~[[;]]

~~X_2, X_3, X_4, X_5, and X_6 represent a total of 1, 2 or 3 nitrogens~~[[;]]

$(CH_2)_n$ is a bond or CH_2;

~~p is 1~~[[;]]

~~Z is a bond~~[[;]]

~~q is 1~~[[;]]

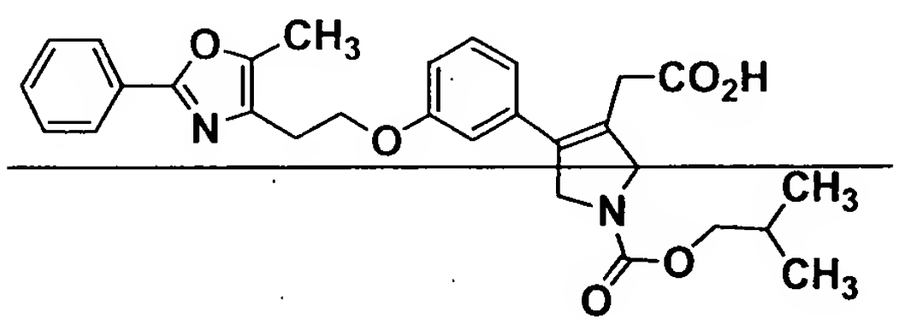
R^3 is alkoxycarbonyl, aryl, heteroaryl, aryloxycarbonyl or arylalkyl;

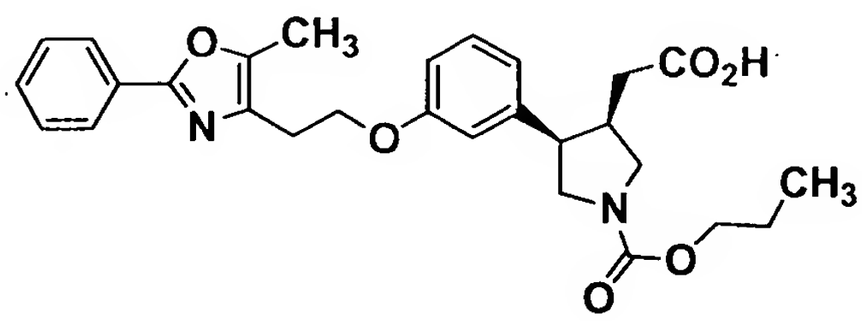
Y is CO_2R^4; and

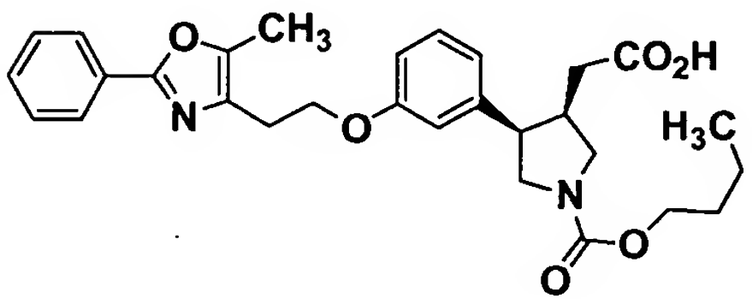
n is 0.

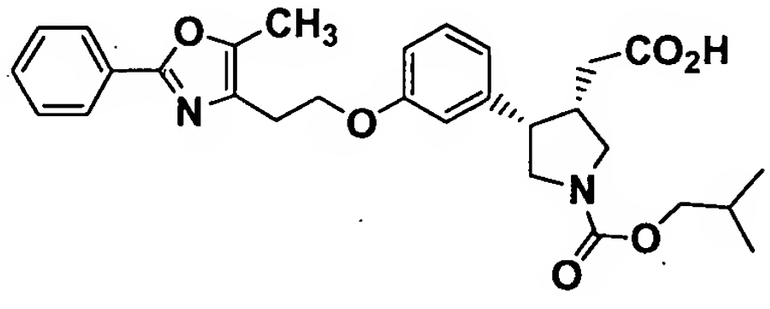
Claim 12. (Cancelled).

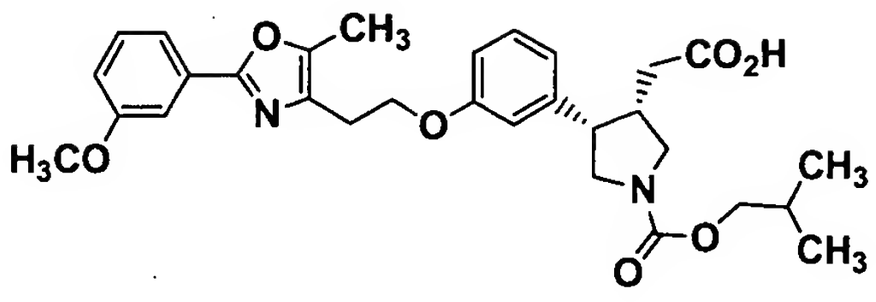
Claim 13. (Currently Amended) The compound as defined in Claim 1 selected from the group consisting of compounds having the structure

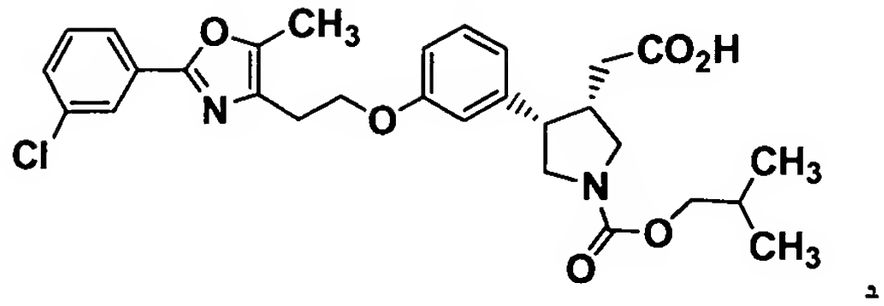


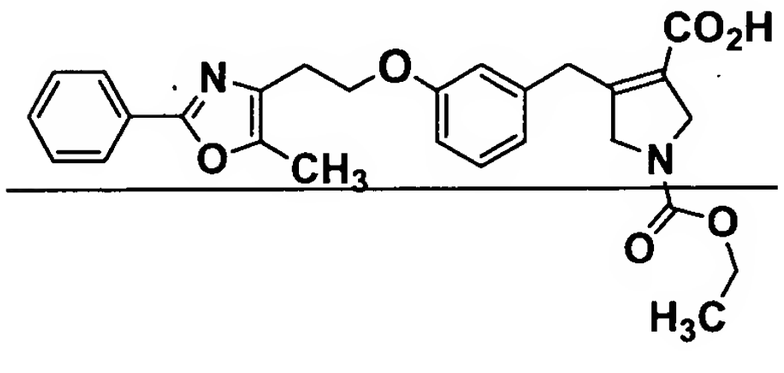


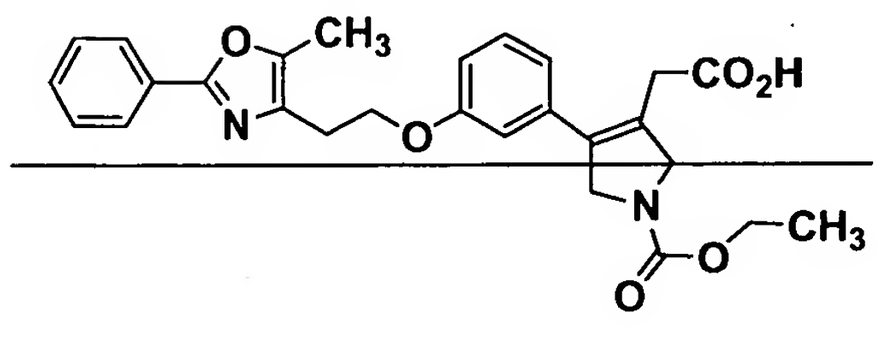


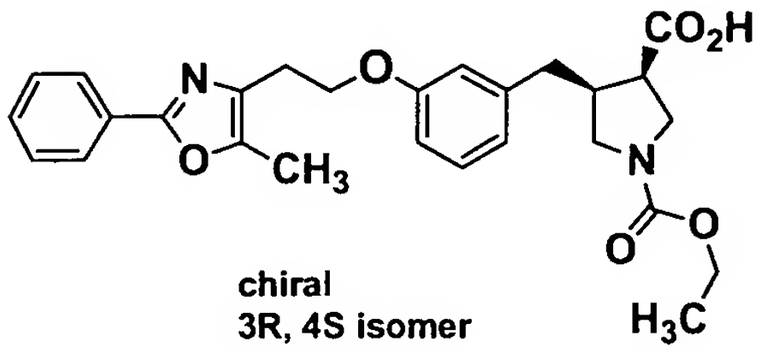




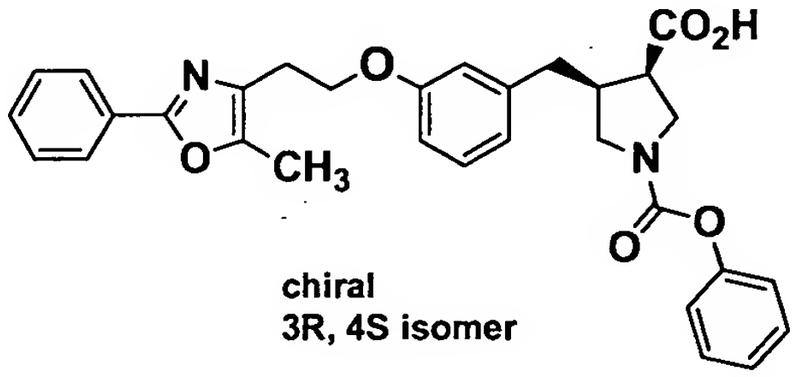




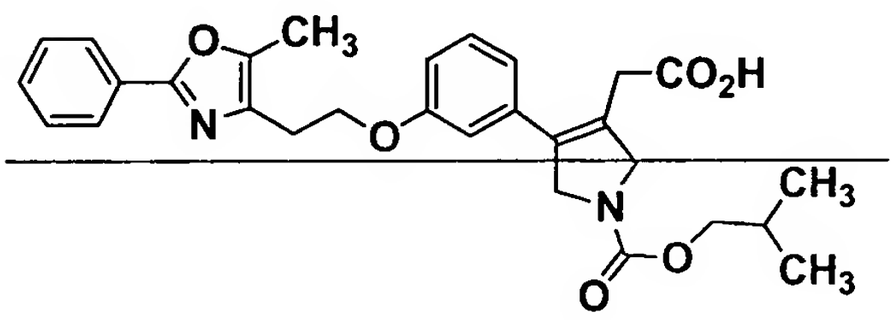


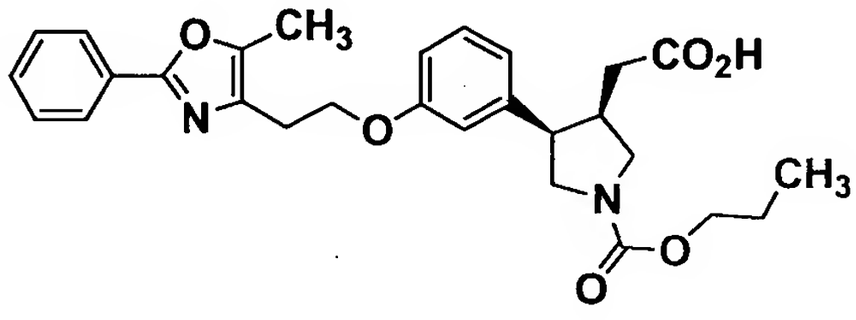


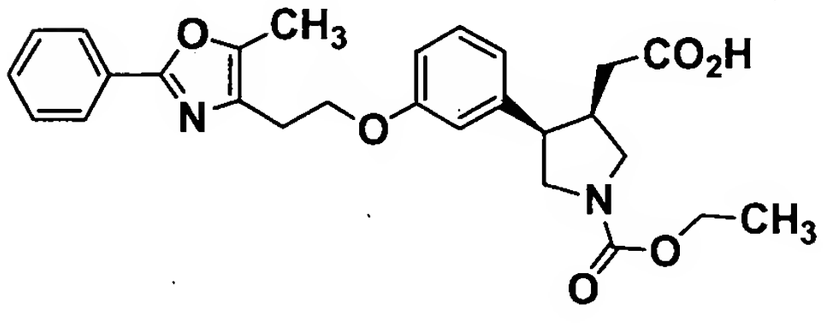
chiral
3R, 4S isomer

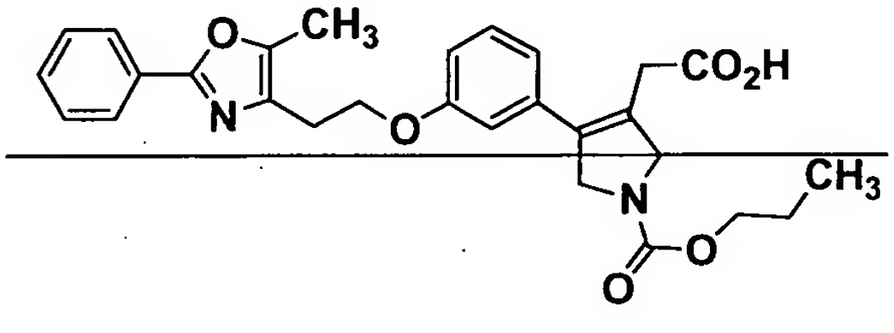


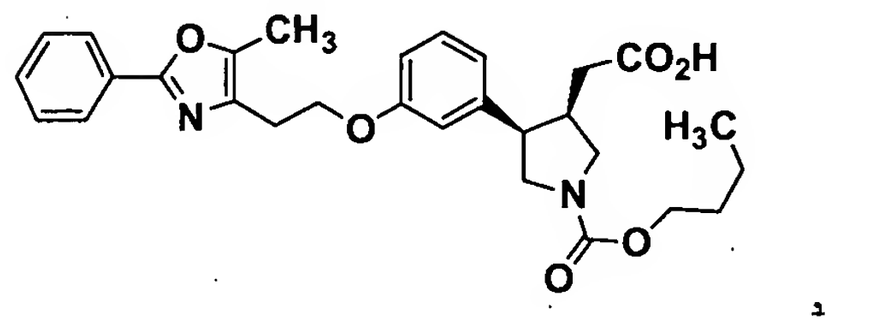
chiral
3R, 4S isomer

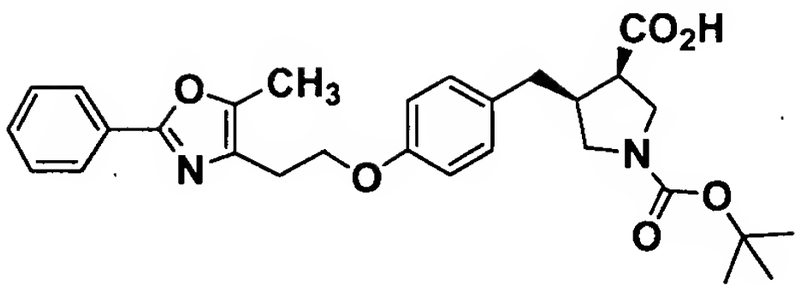


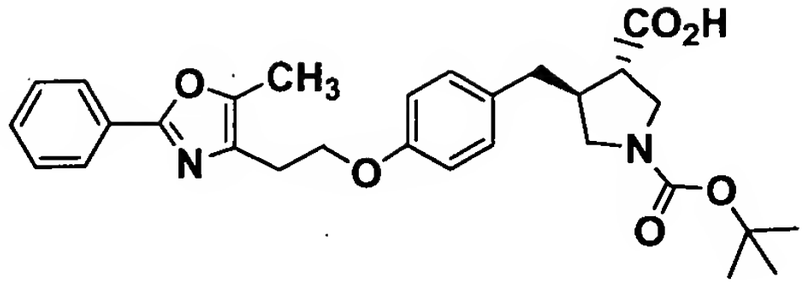


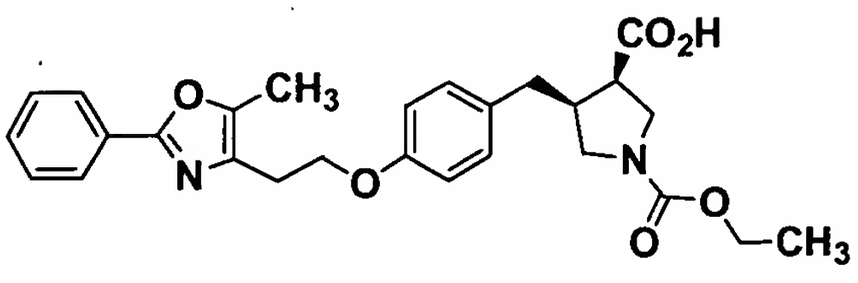


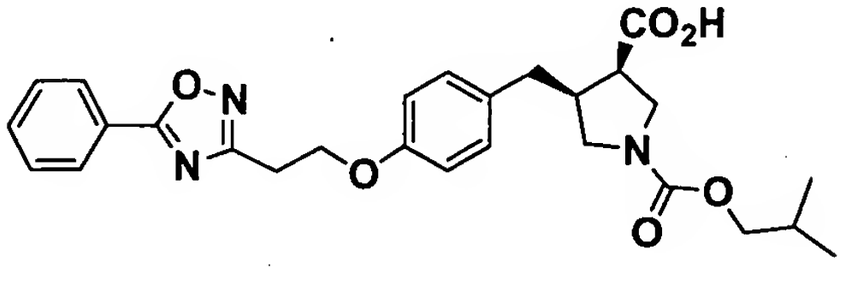


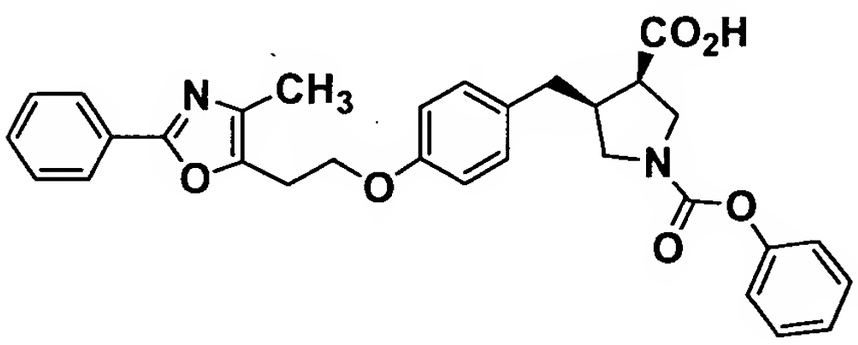


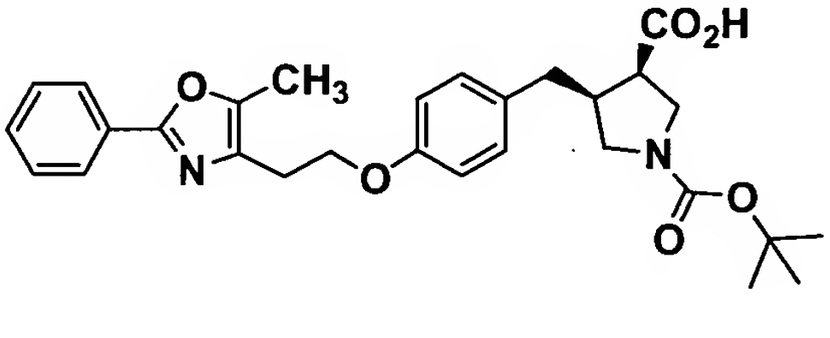


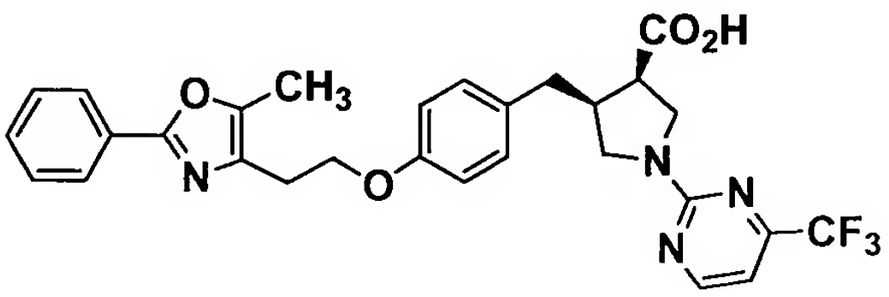


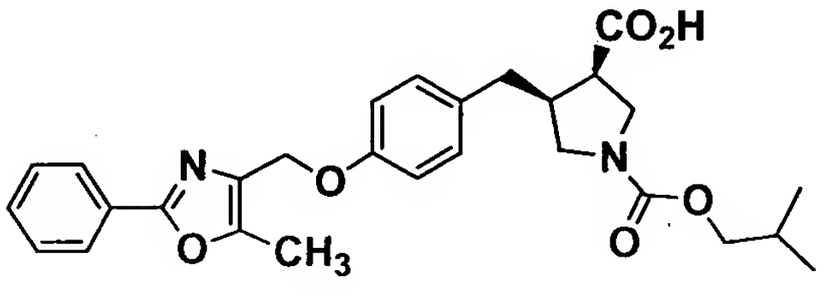


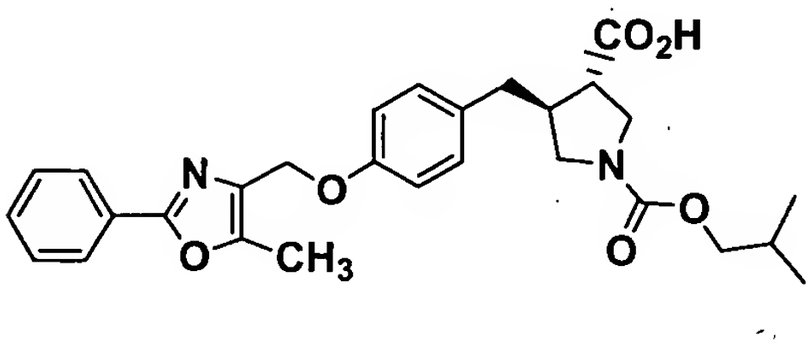


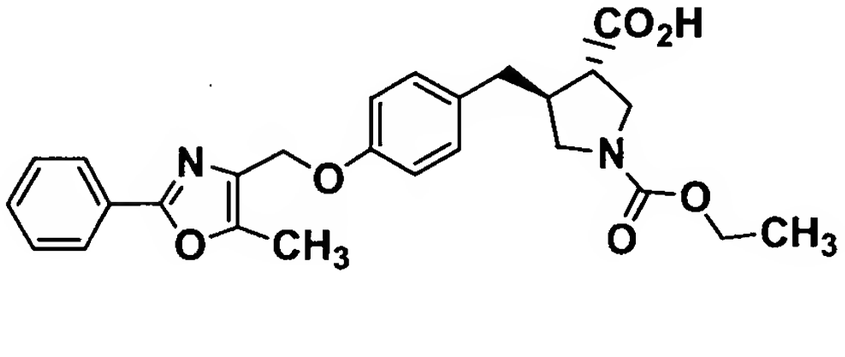


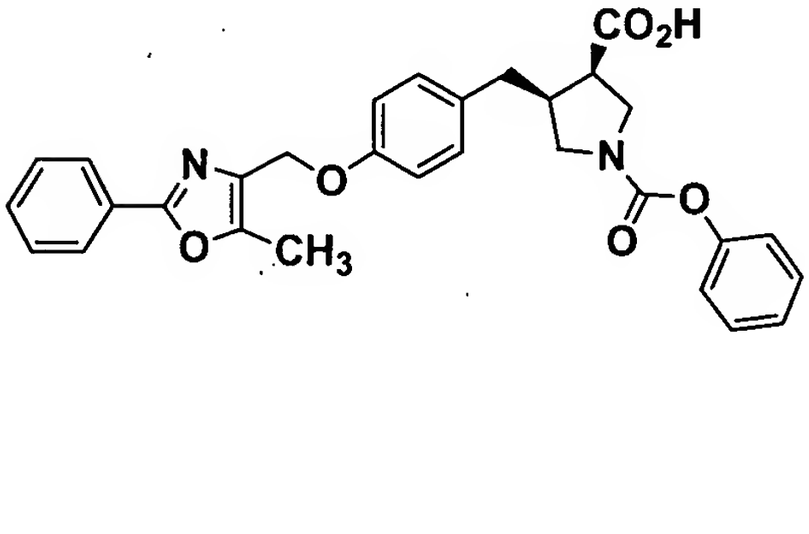


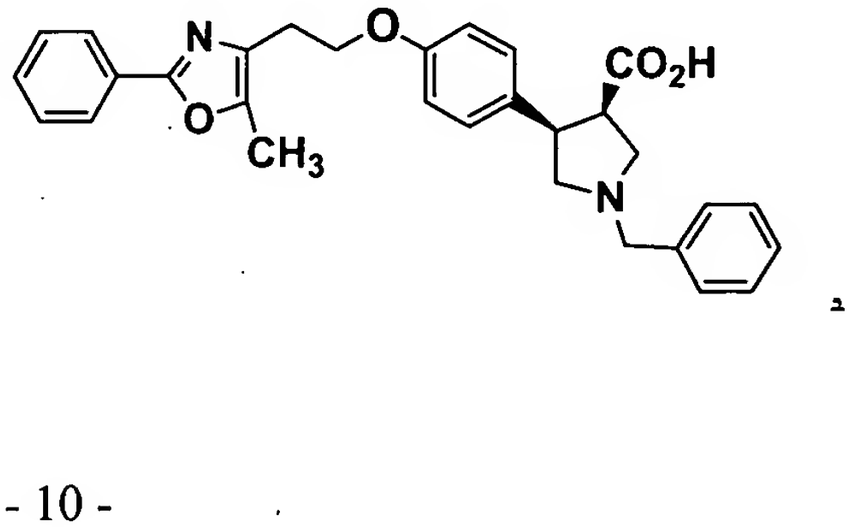


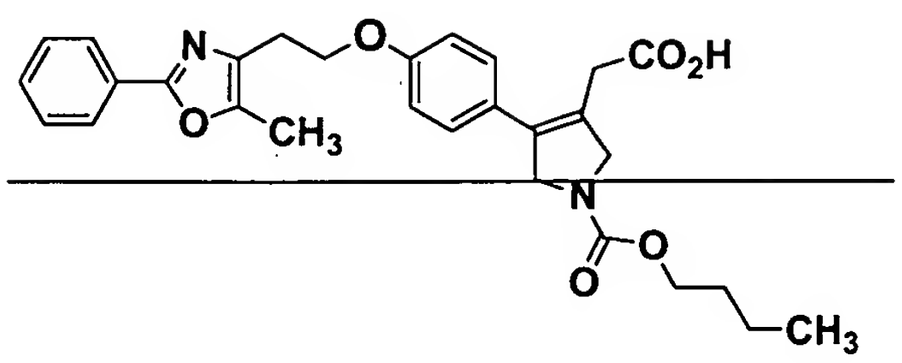


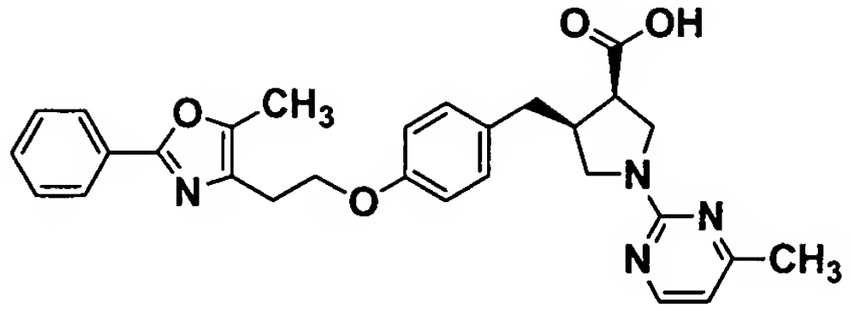


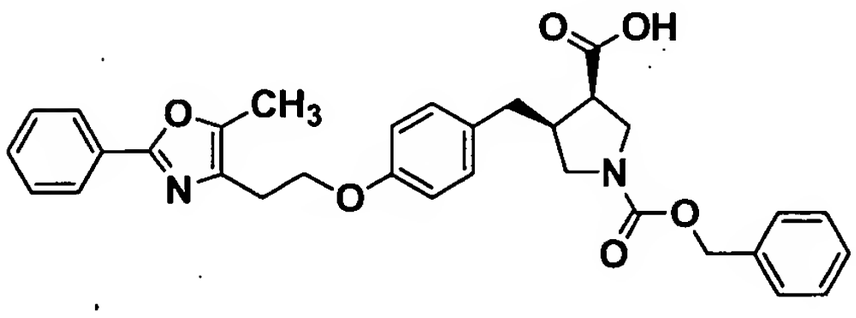


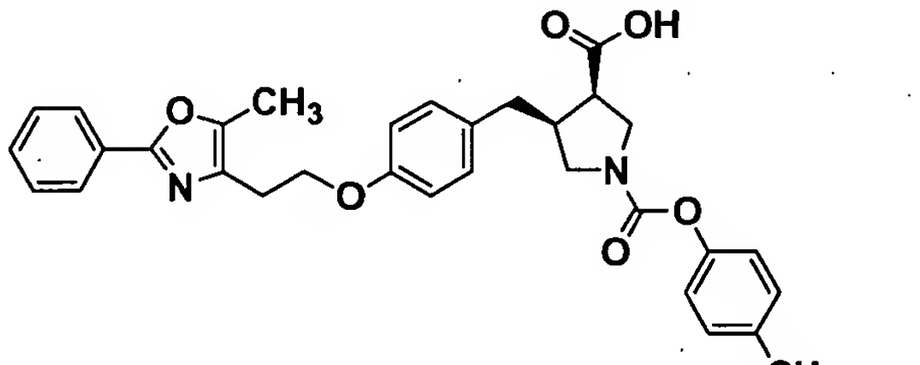


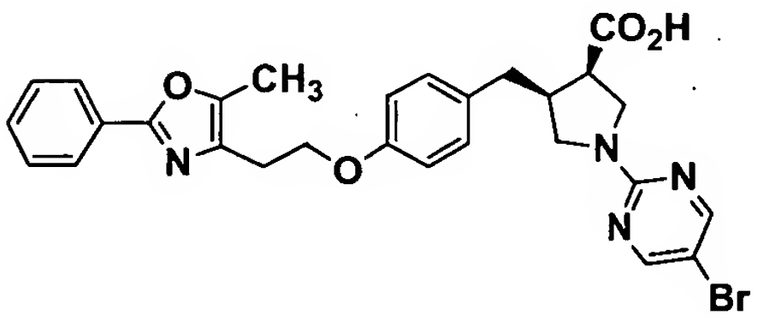


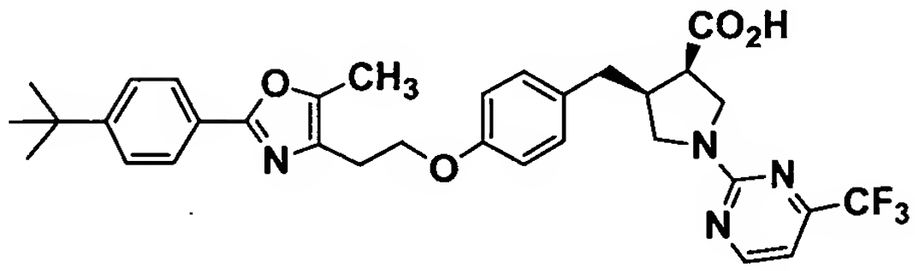


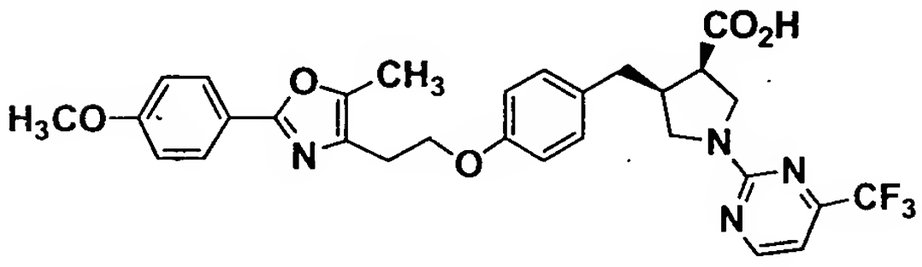


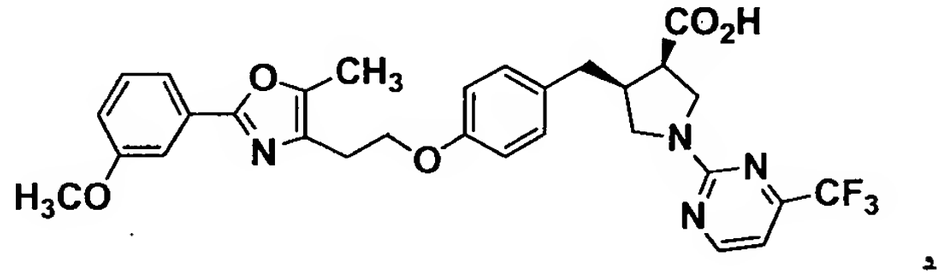


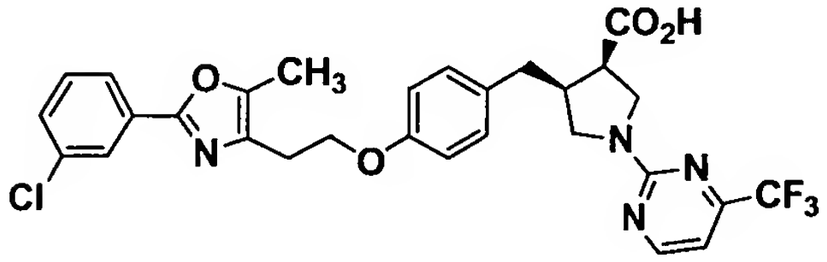


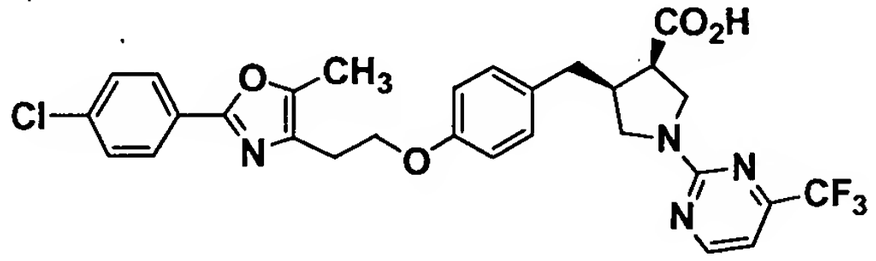


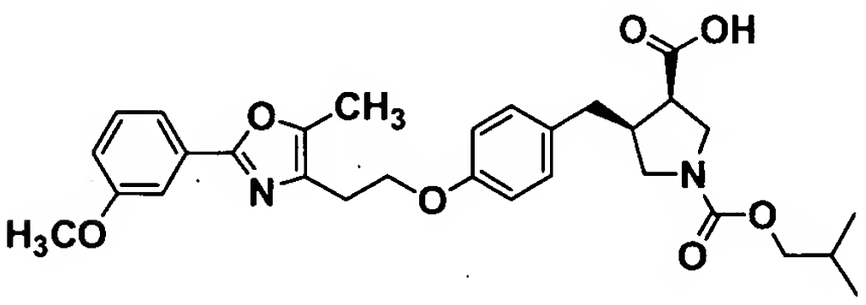


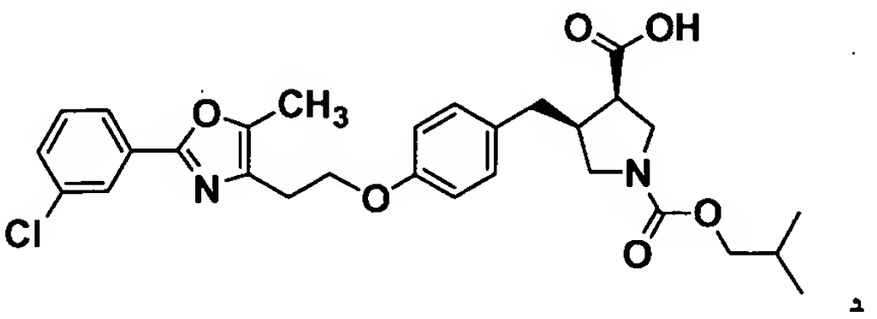


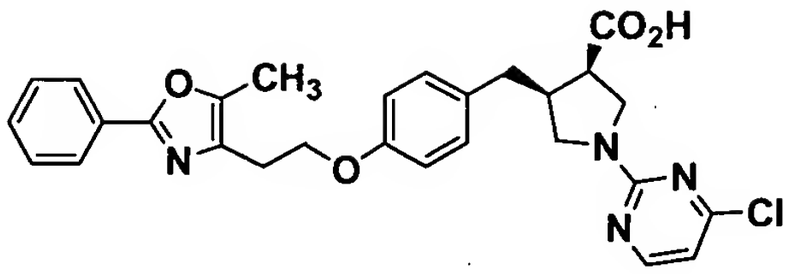


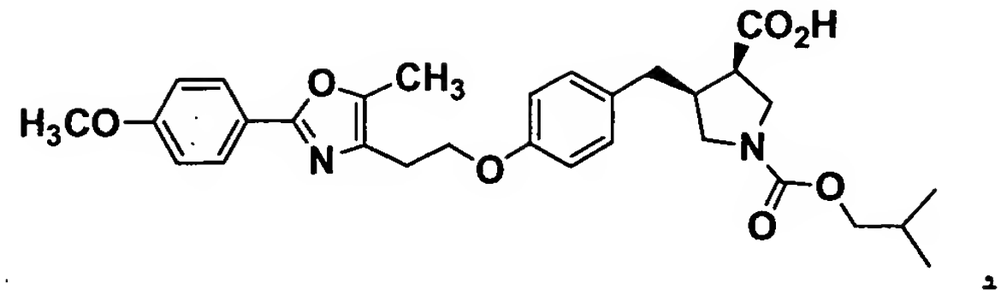


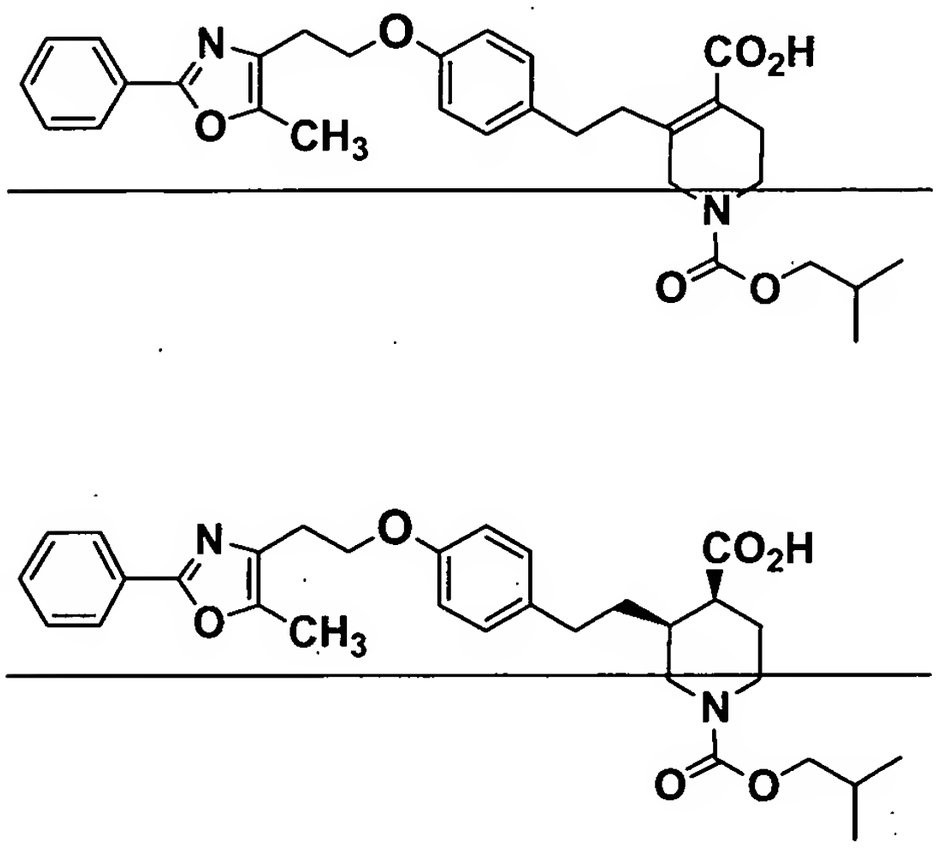


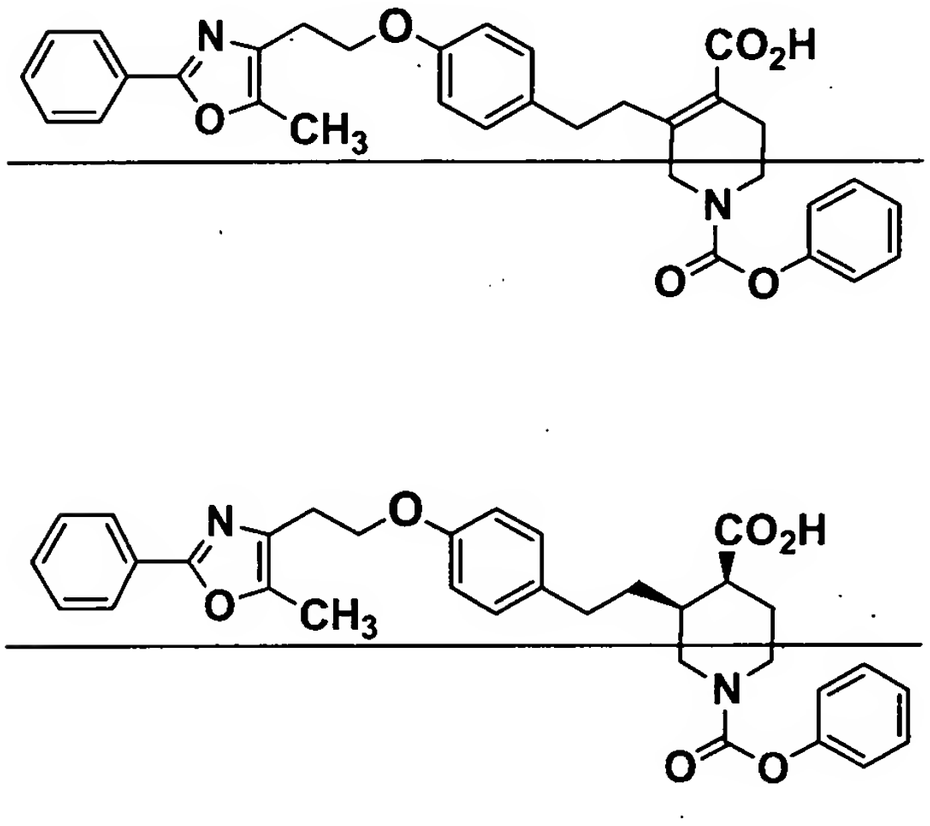


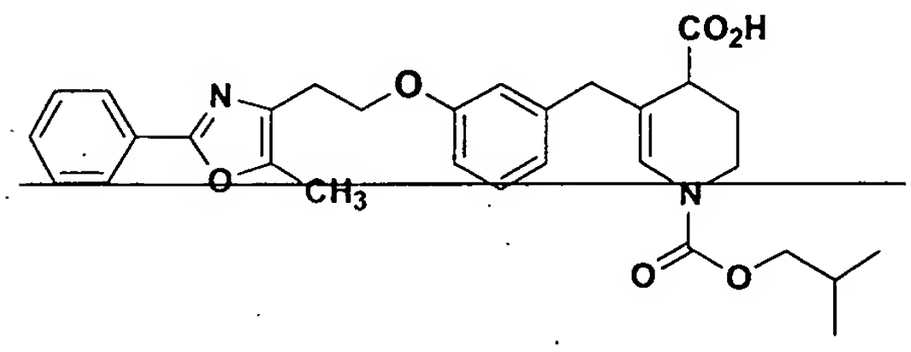


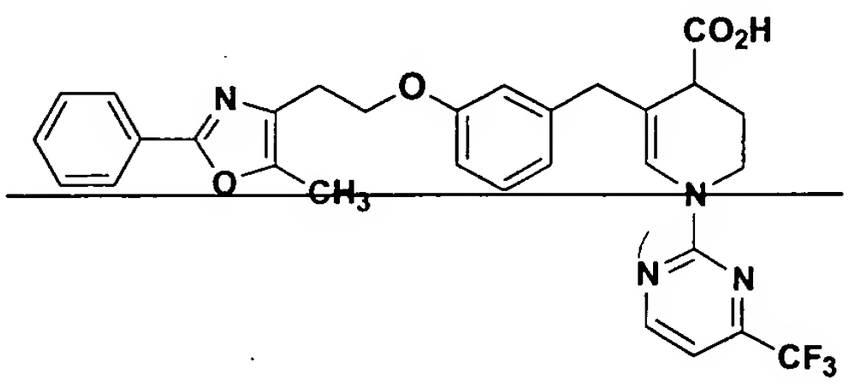


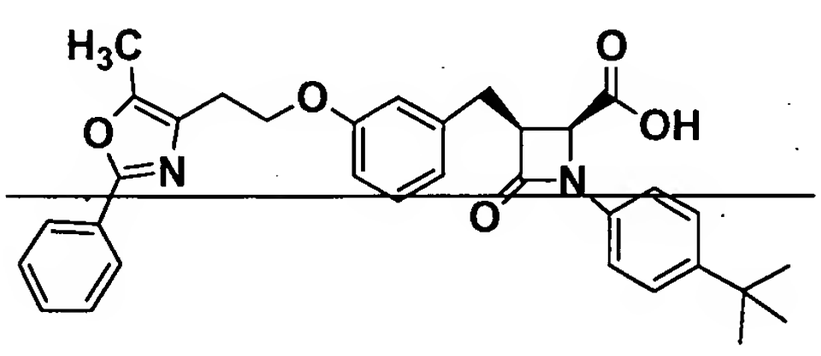


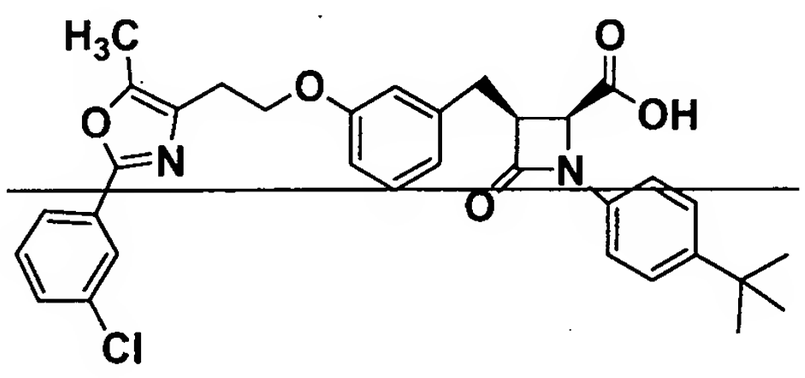


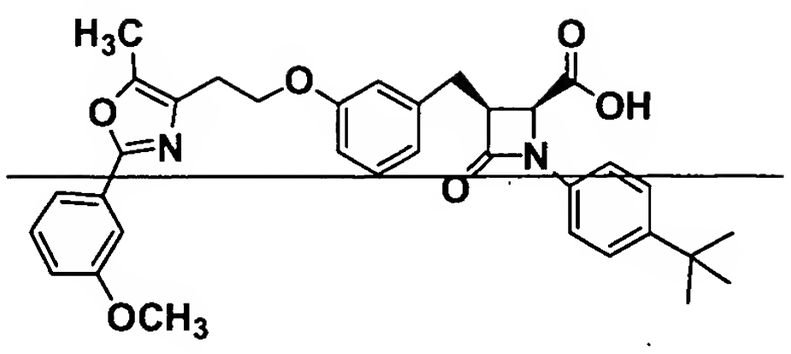


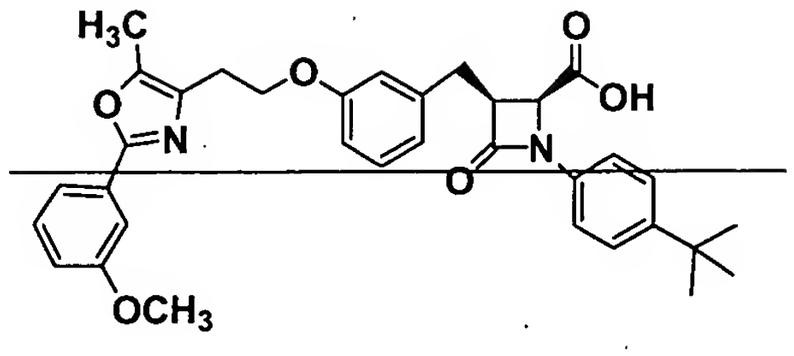


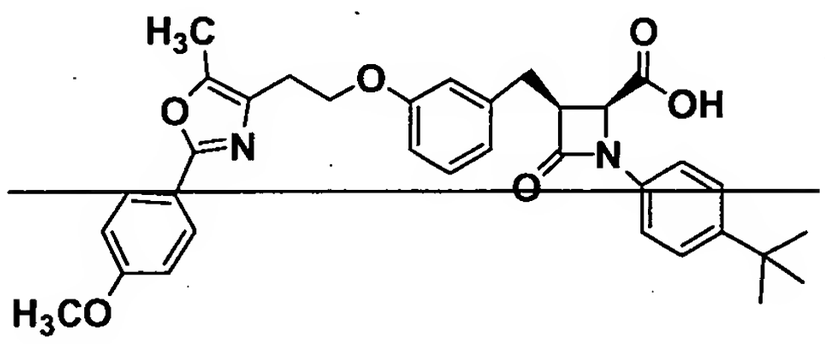


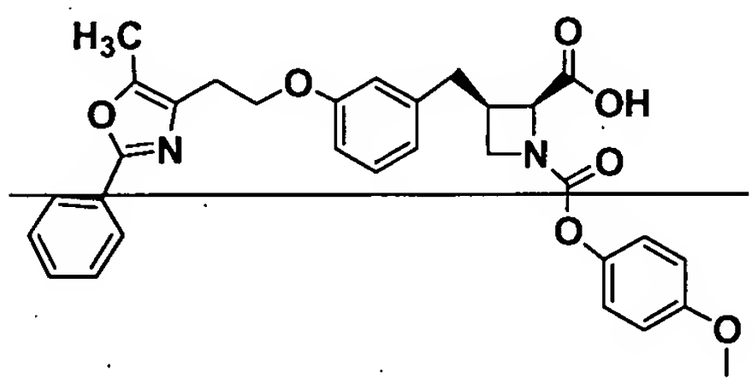


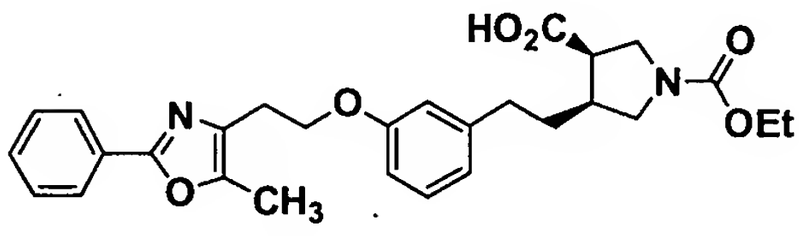


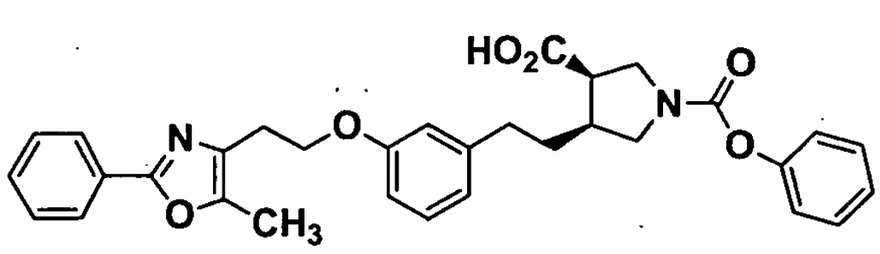


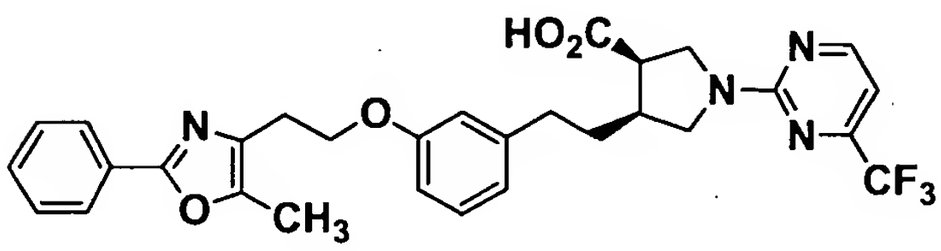


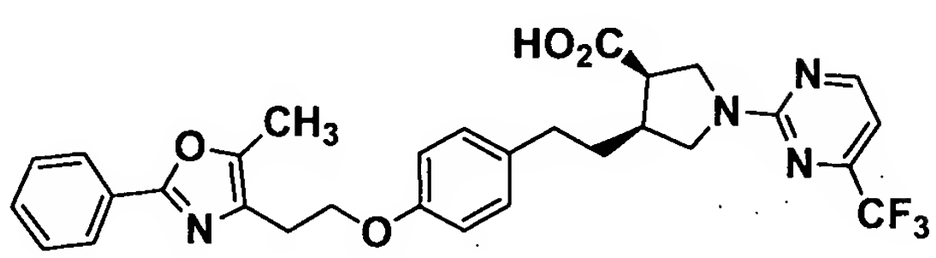


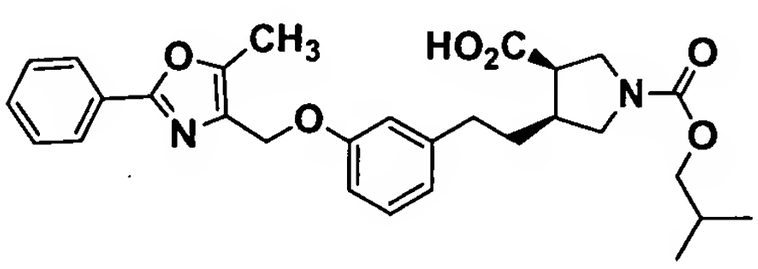


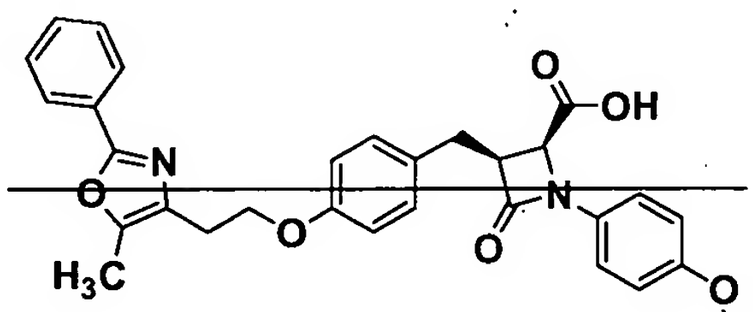


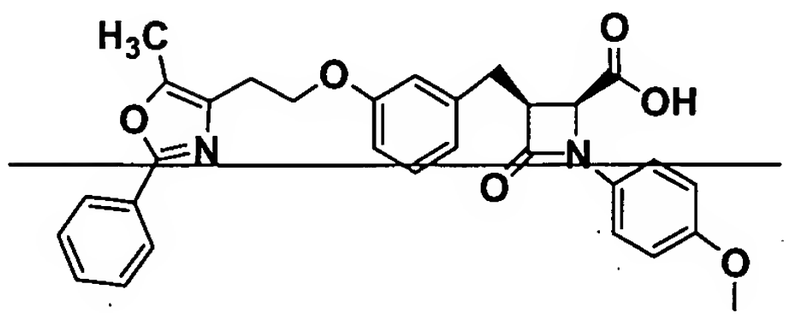


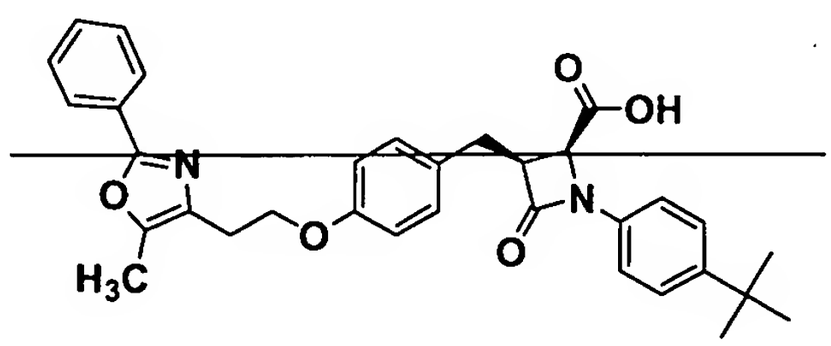


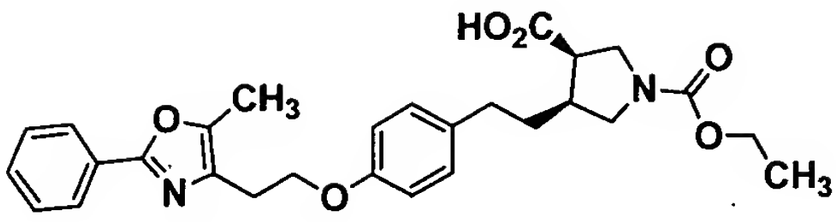
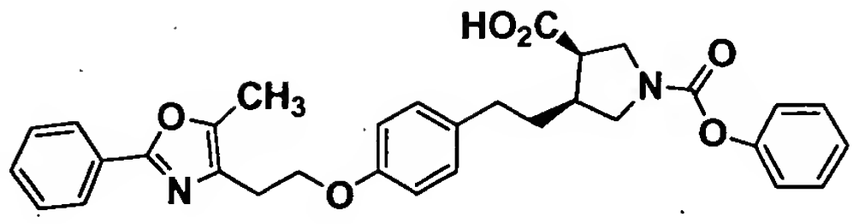










and

Claim 14. (Original) A pharmaceutical composition comprising a compound as defined in Claim 1 and a pharmaceutically acceptable carrier therefor.

Claim 15. (Currently Amended) A method for treating diabetes, ~~especially~~ Type 2 diabetes, ~~and related diseases such as~~ insulin resistance, hyperglycemia, hyperinsulinemia, elevated blood levels of fatty acids or glycerol, hyperlipidemia, obesity, hypertriglyceridemia, ~~inflammation~~, Syndrome X, diabetic complications, dysmetabolic syndrome, or atherosclerosis, ~~and related diseases,~~ which comprises administering to a patient in need of treatment a therapeutically effective amount of a compound as defined in Claim 1.

Claim 16. (Cancelled).

Claim 17. (Withdrawn) A pharmaceutical combination comprising a compound as defined in Claim 1 and a lipid-lowering agent, a lipid modulating agent, an antidiabetic agent, an anti-obesity agent, an antihypertensive agent, a platelet aggregation inhibitor, and/or an antiosteoporosis agent.

Claim 18. (Withdrawn) The combination as defined in Claim 17 wherein the antidiabetic agent is 1, 2, 3 or more of a biguanide, a sulfonyl urea, a glucosidase inhibitor, a PPAR γ agonist, a PPAR α/γ dual agonist, an SGLT2 inhibitor, a DP4 inhibitor, an aP2 inhibitor, an insulin sensitizer, a glucagon-like peptide-l (GLP-l), insulin and/or a meglitinide, the anti-obesity agent is a beta 3 adrenergic agonist, a lipase inhibitor, a serotonin (and dopamine) reuptake inhibitor, a thyroid receptor agonist, an aP2 inhibitor, a cannabinoid receptor-1 antagonist and/or an anorectic agent, the lipid lowering agent is an MTP inhibitor, an HMG CoA reductase inhibitor, a squalene synthetase inhibitor, a fibric acid derivative, an upregulator of LDL receptor activity, a lipoxygenase inhibitor, a farnesoid receptor (FXR) agonist, a liver X receptor (LXR) agonist, a CETP inhibitor or an ACAT

inhibitor, the antihypertensive agent is an ACE inhibitor, angiotensin II receptor antagonist, NEP/ACE inhibitor, calcium channel blocker and/or β-adrenergic blocker.

Claim 19. (Withdrawn) The combination as defined in Claim 18 wherein the antidiabetic agent is 1, 2, 3 or more of metformin, glyburide, glimepiride, glipyride, glipizide, chlorpropamide, gliclazide, acarbose, miglitol, pioglitazone, rosiglitazone, balaglitazone, insulin, Gl-262570, isaglitazone, JTT-501, NN-2344, L895645, YM-440, R-119702, AJ9677, repaglinide, nateglinide, KAD1129, AR-HO39242, GW-409544, KRP297, AZ-242, AC2993, LY315902, P32/98 and/or NVP-DPP-728A, the anti-obesity agent is orlistat, ATL-962, AJ9677, L750355, CP331648, sibutramine, topiramate, axokine, dexamphetamine, phentermine, phenylpropanolamine, rimonabant (SR-141716) and/or mazindol, the lipid lowering agent is pravastatin, lovastatin, simvastatin, atorvastatin, fluvastatin, itavastatin, visastatin, rosuvastatin, pitavastatin, fenofibrate, gemfibrozil, clofibrate, avasimibe, ezetimibe, TS-962, MD-700, cholestagel, niacin and/or LY295427, the antihypertensive agent is an ACE inhibitor which is captopril, fosinopril, enalapril, lisinopril, quinapril, benazepril, fentiapril, ramipril or moexipril; an NEP/ACE inhibitor which is omapatrilat, [S[(R*,R*)]-hexahydro-6-[(2-mercapto-1-oxo-3-phenylpropyl)amino]-2,2-dimethyl-7-oxo-1H-azepine-1-acetic acid (gemopatrilat) or CGS 30440;

an angiotensin II receptor antagonist which is irbesartan, losartan, telmisartan or valsartan;

amlodipine besylate, prazosin HCl, verapamil, nifedipine, nadolol, propranolol, carvedilol, or clonidine HCl, the platelet aggregation inhibitor is aspirin, clopidogrel, ticlopidine, dipyridamole or ifetroban.